

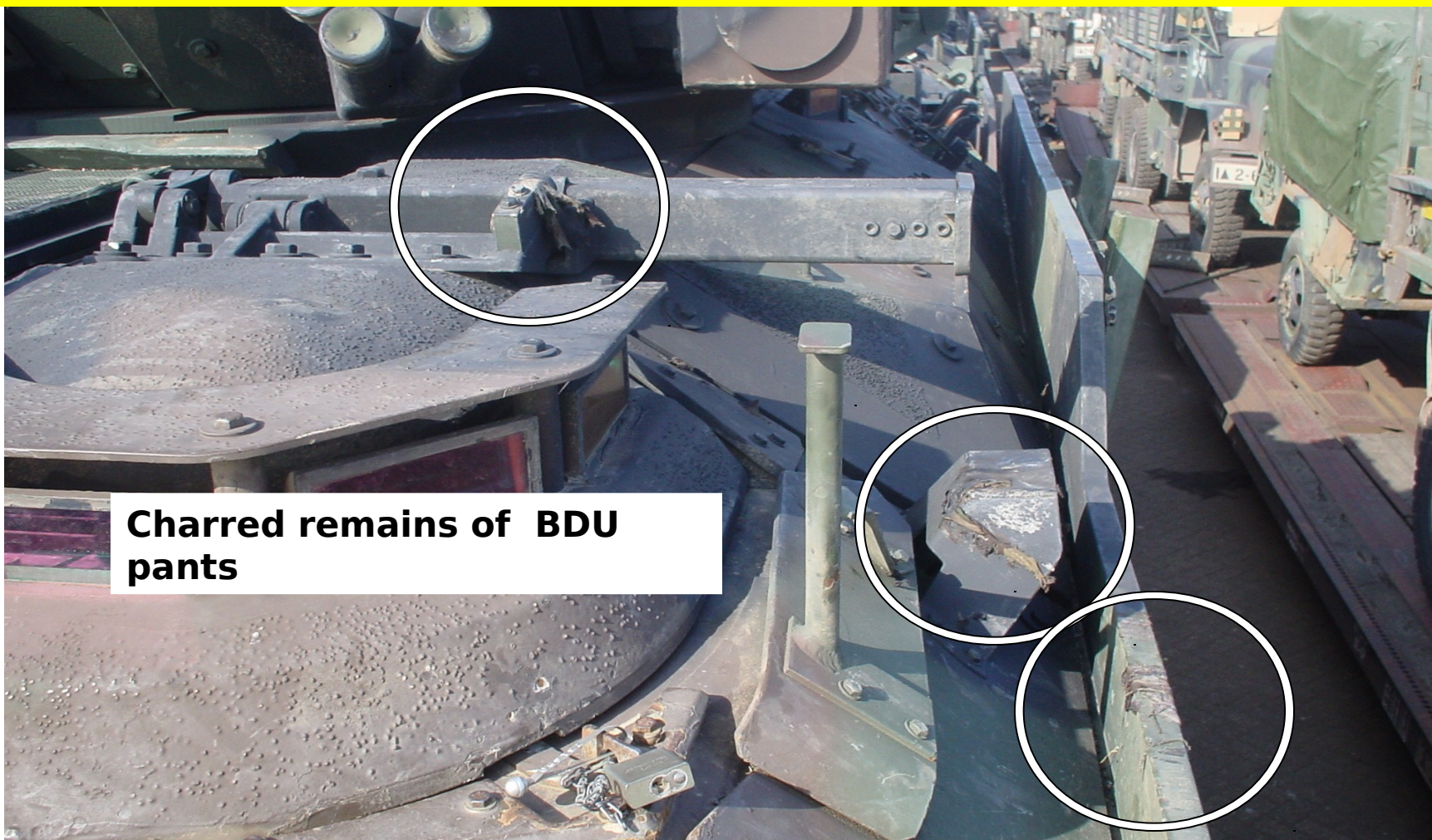
UNITED STATES ARMY, EUROPE

RAILHEAD OPERATIONS TRAINING & VERIFICATION PROGRAM



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WARNING

"From the time a train is being loaded for departure to the time it is ready to be unloaded, no one will climb on the railcars or on the loaded vehicles for any purpose." GEN Bell, 2005



Charred remains of BDU pants

RAILHEAD OPERATIONS TRAINING

Purpose: To ensure leaders, who are planning or conducting rail operations in USAREUR have personnel trained to safely execute



RAILHEAD OPERATIONS TRAINING

Objective: Through a self-paced program of instruction,

- 1) Ensure junior leaders have the knowledge and the understanding of what resources are necessary to safely plan, rehearse, execute and conclude railhead operations.
- 2) Provide key personnel the resources (checklists) to observe, assist and verify critical requirements have





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RAILHEAD OPERATIONS TRAINING

References:

- USAREUR Regulation 55-26, Movement Planning
 - AE Pamphlet 385-15, Leader's Operational Accident Prevention Guide
 - AE Pamphlet 385-15-2, Commander's Rail-Loading Checklist and Risk Assessment
 - USAREUR Regulation 385-55
 - Field Manual (FM) 21-60, Visual Signals
-
- VHS Video tape # A0954-88-0003 Procedures for loading a European railcar.



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RAILHEAD OPERATIONS TRAINING

Definitions:

- **Branch Movement Control Team (BMCT):** Local U.S. Army transportation representative (Railmaster) present. Serves as primary liaison for Army/ civilian rail operations.
- **Railhead Commander/OIC:** SFC or above, with prior USAREUR railhead operation experience; in charge of rail operations and safety team at the railhead.
- **Railhead Safety Officer:** SSG or above; subordinate to the railhead commander.
- **Train Commander:** SFC or above, with previous USAREUR rail operation experience. He is the POC for the BMCT.
- **Train Safety Officer:** SGT or above, subordinate to the train commander; serves as the second member of the rail safety team (subordinate to the railhead safety team officer) at the railhead.
- **Auricular Supervisor:** Senior vehicle operator of vehicles being loaded on one equipment railcar, or senior NCO on a passenger car.
- **Railhead Safety Team:** Comprised of railhead safety officer and the train safety NCO for the moving unit.

RAILHEAD OPERATIONS TRAINING

History:

“Rail is often the preferred mode of transport because it is less expensive and faster than other means for moving large forces.”

*General Omar Bradley
1959*





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RAILHEAD OPERATIONS TRAINING

Past Lessons Learned:

This is an excerpt from a Desert Storm/Desert Shield brigade AAR

TITLE: Preparation for Movement - Rail Loading Training

LESSON LEARNED: Units need better rail loading training before deployment.

BACKGROUND: *Lack of training and unfamiliarity with responsibilities caused delays in the early stages of equipment rail deployment.*

The first unit to rail load within the command took a significant amount of time to properly load and tie down equipment on rail cars. There was obvious confusion over standards and responsibility for securing equipment. Both the rail loading team and the unit shared confusion over respective responsibilities. It took over 15 hours to load the first train. As more trains were loaded, soldiers and load teams became familiar with requirements and loading was accomplished much quicker. The expertise gained from this exercise will rapidly be lost as experienced soldiers depart.

RECOMMENDATION: **Require rail loading training** at least annually for deployable units. Training should be coordinated with the local Movement



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RAILHEAD OPERATIONS TRAINING

This Presentation Contains:

Part I - The Training Program

Part II - Sample Railhead Operations Training

Part III - Verification Program

Part I - The Training Program

Lessons

Lesson 1 - Introduction

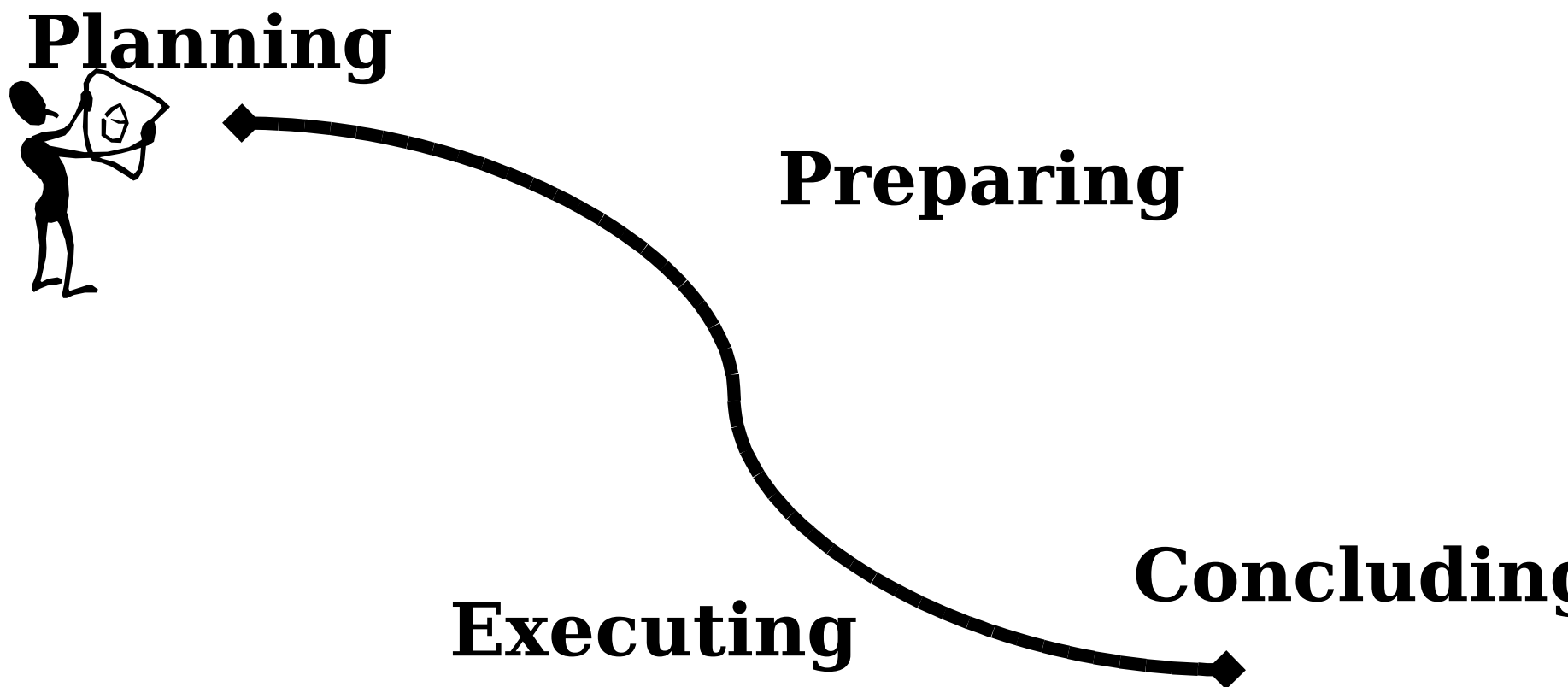
**Lesson 2 - Pre-Operation
Requirements**

**Lesson 3 - Loading and
Unloading**

**Lesson 4 - Rail Risk
Assessments**

Lesson 1 - Introduction

The 4 Phases of Railhead Operations



Lesson 1 - Introduction

The 4 Phases of Railhead Operations

(1) Planning- Every unit has or rather SHOULD have a unit movement plan (UMP). This will be the foundation for your preparations to move your unit via rail. Contained in a UMP are the listings of TO&E items necessary for movement, information on the cubic space required for unit material (other than rolling stock). Most of this information will be needed by the Unit Movement Officer (UMO). The types of rolling stock and number of containers will dictate the required support equipment necessary for operations. Also necessary in the planning stage is sustainment training of UMOs and Railhead OICs/NCOICs as well as Train Commanders. A continuous training program ensures historical unit knowledge of railhead preparations. A general risk



Lesson 1 - Introduction

The 4 Phases of Railhead Operations



(2) Preparing- This phase begins the moment your commander receives the warning order. During the planning phase, you reviewed your unit TO&E and have an understanding of any unique support items necessary for rail movements, i.e.; Material Handling Equipment (forklifts) with qualified operators, maintenance personnel, qualified operators for all vehicles involved in the movement, trained ground guides, combat life savers/medics. The risk assessment initiated during the Planning phase for unit rail load and unload operations is reviewed and updated with current, mission specific information. All potential hazards are addressed and if possible mitigated during the Preparing phase.

Lesson 1 - Introduction

The 4 Phases of Railhead Operations

(3) Executing – At this point, leaders at all levels should execute the operation without further guidance. Training, logistical requests, support issues should have been reconciled well prior to the actual operation.



Lesson 1 - Introduction

The 4 Phases of Railhead Operations

(4) Concluding Operations – As the famous Baseball player, Yogi Berra once said, “It ain’t over till it’s over!” The same goes for railhead operations. Onward movement of the equipment either by rail or by convoy requires a formal hand off of the operation to other personnel. The railhead site needs to be secured and policed. The Let’s-Get-Outta-Here bug is a contagious virus that will ensure an 11th hour failure of your operation. Conduct a closing brief covering egress procedures from the location, sensitive items check, police call requirements, and the release of support personnel from the mission.



Lesson 1 - Introduction



The Rail Head: (short and sweet)

The train pulls onto the loading spur, vehicles and or containers

are loaded onto the train, and



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Lesson 1 - Introduction

The Rail Head:

Now lets take a closer look:

- Unit Commander appoints a railhead OIC.
- The OIC and the UMO along with the unit supply, maintenance and safety personnel review unit movement plan.
- Risk assessments are initiated per local SOP for the time of year, time of day, and the type of mission.
- Coordination with BMCT is completed and any local facility requirements are coordinated.
- Key team leaders are identified and briefed on responsibilities for their mission.



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Lesson 1 - Introduction

Now lets take a closer look: (continued)

- Examples of teams are, Ground Guides, Blocking and Bracing, Vehicle Operators, Maintenance, Medical, Safety.
- The equipment is staged per local procedures and can only be moved after the railhead OIC has received clearance from the BMCT / civilian train personnel.
- Before any operations begin, the railhead commander must brief all personnel. Included in this briefing are safety precautions, emergency procedures for mishaps, fire and HAZMAT response procedures, vehicle breakdown



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Lesson 1 - Introduction

Now lets take a closer look: (continued)

- Before the operation begins, all personnel will wear prescribed personal protective equipment. At a minimum, hard hat/kevlar helmet, reflective belt or vest, gloves, flashlights or chemical lights. Also, weather dependant items as necessary.
- The rail cars will need to be prepared. A multi person team (local SOP may prescribe between 8-12 personnel) will lower the rail car sides (*for side loading only*) and crossover plates. All blocking and bracing material as well as spikes and nails must be removed. If present, all snow and ice must be removed.



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Lesson 1 - Introduction

Now lets take a closer look: (continued)

- When the order is given, rolling stock can be moved onto the rail cars. Each separate vehicle will have a ground guide, and all tracked vehicles will have two. For backing operations, two ground guides are required for all vehicles. From the point of entry onto the railhead location, until it finally comes to rest on the rail car, all rolling stock will be ground guided.



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Lesson 1 - Introduction

Now lets take a closer look: (continued)

- Once the vehicles are in place, they are blocked and braced, the Train commander takes command of the cargo and rolling stock, coordinates departure with the BMCT and the civilian train personnel, and briefs their personnel and awaits departure.
- The railhead OIC ensures all excess blocking and bracing material is returned to its proper place, and a thorough police call is performed after the train has departed.

Lesson 2 - Pre-Operation

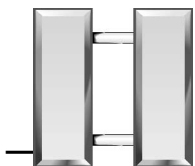
Lesson 2

Pre-Operations Requirements.

Requirements for:

- Unit Commanders
- Train Commanders
- Transportation Officer or Representative
- Railhead OIC/NCOIC
- Vehicle Operators
- And All Personnel

Lesson 2 - Pre-Operation



Unit Commanders:

Before beginning rail-loading operations, will ensure

- Personnel conduct a risk analysis of the railhead site considering common risk factors.
- Soldiers are briefed and instructed on safety standards and procedures.
- The following safety equipment is available:
 - a. Reflective vests or belts.
 - b. Flashlights or chemical lights.
 - c. Kevlar or OSHA-approved hardhats.
 - d. Leather or work gloves (*not wool inserts*).
 - e. Eye protection.
 - f. Hearing protection.
- The following supervisory personnel are available and qualified:
 - a. OIC.
 - b. NCOIC.
 - c. Safety officer or NCO

Lesson 2 - Pre-Operation



Unit Commanders:(Continued)

Before beginning rail-loading operations, will ensure

- Trained ground guides are available.
- Medical support is available at loading and unloading sites and medical support personnel know the most direct route to medical facilities.
- Safety standards are monitored and enforced.
- Soldiers are shown the location of high voltage lines.
- Protection from cold or inclement weather (for example, warming tents) is provided.
- Ensure special requirements for HAZMAT transportation have been addressed (documentation, licensing, equipment).

Lesson 2 - Pre-Operation

Train Commanders. Train commanders will ensure the following requirements have been met before rail loading or unloading:

- Military units and organization personnel have been--
 - a. Completed a pre-mission risk assessment.
 - b. Briefed on regulatory requirements before each rail movement.
 - c. Made aware of unsafe conditions in the railhead area.
 - d. Told to keep a safe distance from electric power lines and systems in the work area.
 - Supervisors are aware that—
 - a. When power lines are switched on temporarily for technical reasons--
 - (1) **Operations must cease!**
 - (2) The area must be cleared of personnel.
 - (3) Operations will not resume until the appropriate railway authority (for example, *Deutsche Bahn* AG in Germany) confirms that electricity has been shut off and grounded in the railhead area.
- (Note: Electrified rail systems with overhead power lines and feeder lines installed beside rail tracks carry 15,000 volts or more.)



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Lesson 2 - Pre-Operation

BMCT (Transportation Officer or Representative).

The transportation officer or designated representative will—

- Coordinate with the responsible railway official and confirm that electric overhead power lines have been shut off and grounded in the railhead work area. Under no circumstances will operations start until confirmation is received.
- Keep units informed of changing conditions.
- Enforce the rules of conduct for ensuring safe operations.
- Make soldiers aware of warning signs posted in the local work area and affixed to railway equipment. Equipment with

steps or stepladders extending higher than 2 meters above the rail car surface will be avoided.



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Lesson 2 - Pre-Operation

Railhead OIC/NCOIC will—

- Coordinate with the responsible railway official and confirm that electric overhead power lines have been shut off and grounded in the railhead work area. Under no circumstances will operations start until confirmation is received.
- Confirm blocking/bracing and securing materials and tools are in good working condition and the necessary amount is present.
- Ensure railcars free of snow and ice.
- Ensure there is enough lighting at the loading and unloading railhead site.
- Ensure medical support is available and onsite before operations begin.
- Ensure drinking water and rations are available to all personnel on the railhead site.
- Keep units informed of changing conditions.
- Enforce the rules of conduct for ensuring safe operations.
- Ensure soldier support facilities are available. (warming tents,



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Lesson 2 - Pre-Operation

All Personnel. All Personnel will—

- Wear Kevlar helmets or OSHA-approved hardhats.
- Wear leather or work gloves when handling chains, wire ropes, blocking, tools, or any other form of bracing material.
- Be equipped with reflective vests or belts and flashlights/chemical lights during darkness.
- Not work or walk on top of unloaded vehicles without specific permission from the OIC or NCOIC. *This will apply even when no overhead line is installed above the tracks. Only the OIC or NCOIC may declare an area safe from electrical hazards.*
- Be informed that the local transportation representative in charge of rail uploading or downloading is the only person authorized to inform HN supervisors when railcars may be moved. *The transportation representative will be the only*



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Lesson 2 - Pre-Operation

Vehicle Operators. Vehicle operators will-

- Thoroughly clean equipment, remove all dirt and oil.
- Check fuel levels: *Vehicles $\frac{3}{4}$ full. Trailer mounted equipment $\frac{1}{2}$ full.*
- Remove and secure all sensitive/classified items.
- Reduce vehicle length, height and width by folding in mirrors, removing storage baskets, etc.
- Secure rotating parts to prevent from moving.
- Ensure all vehicles and trailers are equipped with serviceable tie down devices or shackles. Remove "T Hooks" from combat vehicles and replace with screw pin shackles.
- Protect radios, radio mounts and other electronic components on vehicles to prevent corrosion damage. Cover with plastic, secure or remove and containerize.
- Box and/or store on-vehicle equipment (OVE). When possible, ship with vehicle in locked OVE box.
- Do not cover headlights, reflectors, windshields or mirrors with tape. This does little to protect from damage and becomes a safety issue during loading and unloading operations.
- Remove whip antennas from vehicles before entering a rail-loading site.

Lesson 3 - Loading and

Lesson 3

Loading and Unloading.

Requirements for:

- Unit Commanders
- Train Commanders
- Transportation Officer or Representative
- Railhead OIC/NCOIC
- Vehicle Operators
- And All Personnel



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Lesson 3 - Loading and

Unit Commanders.

Commanders will ensure personnel working at the railhead are briefed —

- Not to be on the same railcar as a moving vehicle. *The only exception is when a second or third vehicle is being placed on a railcar capable of carrying two or three vehicles. The second and third vehicle will move forward only after the first vehicle has stopped completely.*
- Not to jump off railcars.
- Not to walk between railcars.
- Not to ride in or climb on tanks, vehicles, and other equipment being transported by rail after the vehicles and equipment have been locked.
- Not to enter equipment during stops.
- Overhead power lines and feeder lines installed along side rail tracks carry 15,000 volts.
- Utmost caution is mandatory during loading and unloading!



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Lesson 3 - Loading and

Unit Commanders.

Commanders will ensure personnel working at the railhead are briefed —

- They are endangering their lives when they come in contact with:
 - Live power lines.
 - Power lines shut off but not grounded.
 - A person who has been electrocuted while he /she is still in contact with the live power line that has not been grounded.
- Not to work or walk on rail loaded vehicles without specific permission from the railhead OIC/NCOIC.
- That the local BMCT transportation representative in charge of the rail loading and unloading is the only person authorized to inform the HN rail supervisor when railcars may be moved.

Lesson 3 - Loading and

Railhead OIC or NCOIC.

The OIC or NCOIC will ensure—

- Support legs are lowered and tailgates and side braces are removed (if necessary) before loading or unloading operations begin.
- Medical support is available during loading and unloading operations.
- The BMCT or the railway representative has been contacted to ensure that the electricity in overhead power lines has been shut off, and lines have been grounded in the railhead area.
- Trash is cleared from the area before the train leaves.
- Railcars are inspected before loading to ensure ice, snow, and dunnage are removed.

Train Commanders.

Train commanders will lock tracked vehicles and control the keys.

HN Railroad Wagonmasters.

HN wagonmasters must check equipment with traveling tubes or

Lesson 3 - Loading and

Ground Guides.

Ground guides will—

- Coordinate signals with drivers before ground guide operations (with flashlights after dark). The signals to control vehicle drivers shown in FM 21-60 will be used.
- Be seen by the driver at all times. If the driver loses sight of a ground guide, he or she will stop the vehicle immediately.
- Ensure only one ground guide will provide signals to a driver.
- Ensure that they will not walk or run backward. If ground guides are observed walking or running backwards, the vehicle operator will stop and make an on-the-spot correction.
- Ensure that they will not stand on the same rail car as the vehicle being guided.
- Be equipped with reflective vest and flashlights or chemical lights.

- Not place themselves in a dangerous position between two vehicles.

Lesson 3 - Loading and

Ground Guides.

CAUTION: Ground guides will not position themselves between the vehicle being guided and another object where an inadvertent engine surge or momentary loss of vehicle control could cause injury or death. Drivers of vehicles will stop their vehicles immediately if they lose sight of a ground guide or note that the guide is dangerously positioned between the vehicle and another object. Drivers of vehicles in such cases will secure their vehicle, dismount, and make an on-the-spot correction before continuing operations.



Lesson 3 - Loading and

Vehicles.

- Will arrive at the railhead before the scheduled loading time and be staged in the order they will be loaded.
- Will have the nonstandard objects and equipment not part of the vehicles TO&E configuration removed before loading.
- Will have antennas removed from the vehicles before moving to the railcar. Antennas will not be re-installed until after unloading is complete.
- Vehicles will be secured by chock blocks and bracing that locks the sides.

Commanders must ensure:

- Vehicles are properly secured.
- Gun barrels are locked and secured (confirmed by the OIC in the consignment note).
- Railcars are returned well swept (after unloading) and nails and wire remnants are removed completely.

Lesson 4 - Rail Risk

The Risk Management Process

The Risk Management process starts when you the leader, the NCO or the soldier joins the unit. As you begin to understand the unit, it's equipment, and it's personnel, you begin to see hazards and participate in the mitigation process.

Conducting a risk assessment for rail operations is just a continuation of this process.

As in other unit operations, key leaders and soldiers need to be a part of the risk assessment process. During the Planning phase, all unit personnel should plan, rehearse and critique their personal, section and unit

Lesson 4 - Rail Risk

Through this process, the Unit Movement Plan, the Risk Assessment and unit personnel can be fine tuned.

In the following slides, generic hazards and solutions will be presented. Use them as a starting point for your own Risk Assessment. It is only through your “war gaming” of the Risk Assessment, during the planning phase, that will give you a useful product during the Preparation and Execution phases.

Again, the following list is just a starting point!

You will need to expand the risk assessment to



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Lesson 4 - Rail Risk

Electrical shock	Contact with high-tension overhead wires	<ul style="list-style-type: none"> -Railhead commander will verify with MCT that overhead power is off and grounded before allowing any worker to approach the train. -Workers will be briefed on how and when to stand on loaded vehicles. -Do not install antennas on vehicles while on railhead. <p>Establish a staging area for reinstalling antennas on vehicles.</p>
Being hit by a train	Falling under or in front of a moving train	<ul style="list-style-type: none"> -All workers will be briefed to stay clear of railroad tracks and railcars until the train has been completely stopped and secured, and train blocking chocks are in place. -Passengers will not disembark until cleared by the railhead commander.
Fire or explosion	Ignition of POL products or explosives	<ul style="list-style-type: none"> -Railhead commanders will brief all workers that smoking will be allowed only in designated smoking areas. -Workers will not carry any flame or spark-producing devices into the railhead area. -Railhead commanders will establish a spark- or flame-producing device turn-in point.



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Lesson 4 - Rail Risk

Pinching or cutting of hands or fingers	<ul style="list-style-type: none"> -Lack of working room between vehicle, railcar, tools, and b&b material -Poor lighting 	<ul style="list-style-type: none"> -Brief workers on the dangers of the operation. -Ensure workers wear leather gloves while handling b&b material and removing the blocking material. -Ensure ample lighting is available during periods of limited visibility.
Eye damage or eye loss	<ul style="list-style-type: none"> Flying chips of blocking material, railcar, or nails 	<ul style="list-style-type: none"> -Ensure workers removing b&b material wear protective headgear and eye goggles. -Ensure observers either wear goggles or stand back far enough to prevent injury.
Head or body injury	<ul style="list-style-type: none"> -Sheer Weight of rail components -Sudden release of tension of bracing cables or chain 	<ul style="list-style-type: none"> -Ensure leather gloves are worn by workers. -Ensure workers wear eye protection. -Ensure warning is given when releasing cables or chains. -Ensure protective headgear is worn. -Use at least two workers to handle each side or end piece. -Warn others when siding is being lowered.



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Lesson 4 - Rail Risk

Nail in foot, leg, or hand	Nails or screws protruding from railcar or b&b material	<ul style="list-style-type: none"> -All b&b handlers will wear leather gloves. -Inspect railcars and b&b material before operations begin. -Remove nails, screws, and other hazardous pieces immediately. -Carefully hand b&b material with nails, screws, or other protruding metal to another worker, then place b&b material in a designated pile. -Surround designated area for b&b material with engineer tape or another suitable device.
Pinched worker's hand or leg under moving vehicle	<ul style="list-style-type: none"> -Worker still removing b&b material -Loss of sight of ground guard -Failure of driver to follow ground guide instructions 	<ul style="list-style-type: none"> -Ensure ample lighting is available during periods of limited visibility. -Ground guide will ensure that all b&b material is removed and b&b workers are completely away from railcars before vehicles are moved.

Lesson 4 - Rail Risk

<ul style="list-style-type: none"> -Being hit by moving vehicle -Being pinched between two or more vehicles 	<ul style="list-style-type: none"> -Loss of sight of ground guide -Failure of driver to follow ground-guide instructions -Worker not observing operation and surroundings 	<ul style="list-style-type: none"> -Use reflective vests to ensure drivers recognize ground guides. -Ensure ample lighting is available during periods of limited visibility. -Ground guide and driver will always maintain eye-to-eye contact. -Only one ground guide will be in charge of each vehicle. -Driver will automatically stop vehicle if eye-to-eye contact is lost. -Ground guide will give halt signal if positioning is in question.
<p>Vehicles dropping off railcar side</p>	<ul style="list-style-type: none"> -Ground guide losing sight of railcar edge -Failure of driver to follow ground-guide instructions -Spanners not being used 	<ul style="list-style-type: none"> -Same as above. -Ensure spanners are available and used between railcars for all wheeled and small vehicles.

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Lesson 4 - Rail Risk

Workers or ground guides slipping or falling on walking surfaces	<p>-Worker not observing operation and surroundings</p> <p>-Rain-, ice-, or snow-covered walking surface</p>	<p>-Ensure ample lighting is available during periods of limited visibility.</p> <p>-Remove ice or snow.</p> <p>-Apply melting agent to surface.</p> <p>-Brief workers on conditions and most slippery areas.</p>
	Rain-, ice-, or snow-covered walking surface	-Ground guide and workers will not walk backwards or run.
People falling from vehicles	Rain-, ice-, or snow-covered vehicle	<p>-Ensure ample lighting is available.</p> <p>-Remove ice or snow.</p> <p>-Brief workers on conditions and most slippery areas.</p> <p>-Drivers maintain three-point contact.</p> <p>-Workers will carry flashlights or chemical lights during periods of limited visibility.</p>

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Lesson 4 - Rail Risk

Vehicle falling from railhead ramp	<ul style="list-style-type: none"> -Loss of sight between ground guide and driver -Failure of driver to follow ground-guide instructions 	<ul style="list-style-type: none"> -Ensure ample lighting is available during periods of limited visibility. -Driver will halt vehicle if there is loss of sight between driver and ground guide. -Reflective vest will be worn by ground guide.
Ground guide falling off ramp side	<ul style="list-style-type: none"> Ground guide walking backwards or running 	<ul style="list-style-type: none"> -Same as above. -Ground guide will not walk backwards or run. -Leaders will constantly monitor operation.
Ground guide being hit by vehicle	<ul style="list-style-type: none"> -Ground guide too close to vehicle -Driver not paying attention to ground guide 	<ul style="list-style-type: none"> -Ensure ample lighting is available during periods of limited visibility. -Ground guide will maintain distance between vehicle and him- or herself at all times. -Ground guides will wear reflective vests. -Leaders will constantly monitor all operations

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Lesson 4 - Rail Risk

Pinching people between MILVANs, trailers, or other objects or railcar ends	<ul style="list-style-type: none"> -Closeness of MILVANs and trailers -Large number of MILVANs and trailers -Difficulty controlling MILVANs or trailer movement while attached to crane 	<ul style="list-style-type: none"> -Ensure ample lighting is available during periods of limited visibility. -Maintain clear zone around MILVANs and trailers while being lifted. -Ensure safety monitor is observing entire lifting procedure to warn workers if danger is detected. -Establish warning sign, sound, or order and brief all workers on correct usage. -Ensure that all work halts if anyone sounds danger warning alarm. -Use guide ropes to assist in controlling MILVAN and trailer movement.
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Lesson 4 - Rail Risk

Guide-rope handlers injured	Guide rope wrapped around hand, arm, or leg	<ul style="list-style-type: none"> -Ensure guide-rope handlers are briefed on how to properly use guide ropes. -Ensure workers do not wrap guide ropes around hands or arms. -Ensure excess guide rope does not tangle around operator's foot or leg. -Guide-rope handlers hold rope tightly. -Ensure guide rope-handler lets go of rope if MILVAN or trailer starts spinning. -Ensure guide-rope handlers wear leather gloves.
Vehicles falling between railcars and platform	Gaps between train and platform, especially at ends of railcars	<ul style="list-style-type: none"> -Avoid side loading if possible. -Ensure spanners are available and used at gaps. -Evaluate railcar for condition and type, if span is inadequate.
People falling between railcars and platform	Gaps between train and platform, especially at	<ul style="list-style-type: none"> -Same as above. -Ensure workers are briefed on hazards. -Ensure safety personnel closely monitor worker movement.
AN ARMY FORWARD ANY MISSION, ANYWHERE!		<ul style="list-style-type: none"> -Use the buddy system while moving through the

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Lesson 4 - Rail Risk

<ul style="list-style-type: none"> -Tent catching fire -People getting hurt or killed -Loss of equipment 	<ul style="list-style-type: none"> -Hot smokestack touching tent flaps or tent -Hot pieces of soot landing on tent roof -Improper procedures -Improper fuel -Fuel control turned up too high -Fuel leak -No working fire (AB) extinguisher -Fire guard not in place of duty 	<ul style="list-style-type: none"> -Smoke stacks must have two complete sections above tent opening. -Three guy wires will be used. -Tent flaps must be tied back. -Checks for fuel leaks must be made hourly by a licensed fire guard. -Fuel source must be positioned at least 5 feet from tent. -Secondary containment must be available for fuel source and reserve fuel. -A drip loop must be made in the fuel-source hose with a drip can placed below the loop. -Reserve fuel will be at least 50 feet from tent. -Reserve fuel storage area must have secondary containment. -Reserve fuel area must be placarded. -Reserve fuel area must have a designated fire point with a class B fire extinguisher.
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Lesson 4 - Rail Risk

Carbon-monoxide poisoning	<ul style="list-style-type: none"> -Exposure to carbon monoxide -Incomplete combustion of fossil-burning fuels -Defective heating devices -Improper use of equipment -Inadequate ventilation 	<ul style="list-style-type: none"> -Brief workers on use of equipment. -Maintain heating equipment properly. -Use the proper fuel with the proper heater. -Remove defective heaters from use. -Ensure operators are properly licensed. -Ensure there is adequate ventilation.
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Lesson 4 - Rail Risk

Heat stroke	<ul style="list-style-type: none"> -High body temperature -Loss of water or salt -Excessive exposure to heat -High temperature, exposure to the sun 	<ul style="list-style-type: none"> -Ensure acclimatization. -Ensure sufficient water intake. -Ensure protection or shielding from excessive sun or heat. -Provide cool meals instead of hot ones with the heaviest meal served later in the day. -Revise work schedules and workload. -Ensure close supervision. -Identify personnel who are most likely to incur a heat injury. -Lower body temperature by removing clothing and immersing victim in cold water, or sprinkle victim with water and fan the victim to hasten evaporation. -Evacuate victim to a hospital immediately.
Sunburn	Overexposure to the ultraviolet radiation of the sun	<ul style="list-style-type: none"> • Ensure protection or shielding from excessive sun. -Ensure the use of sun block. -Limit the time spent in direct sunlight.

Lesson 4 - Rail Risk

Hypothermia	<ul style="list-style-type: none"> -Exposure to cold wind -Temperatures between 30 and 50 °F 	<ul style="list-style-type: none"> -Stay dry. -Cover head, neck, body, arms and legs. -End exposure to or get out of wind and rain.
Frostbite	<ul style="list-style-type: none"> -Skin exposed to extreme cold -Exposure to cold for long periods -Lack of leadership -Lack of experience Chill blains 	<ul style="list-style-type: none"> -Brief workers on the situation. -Brief workers on cold-weather-injury symptoms. -Wear dry clothing in layers. -Protect hands and feet with proper equipment. -Do not stand in wet areas.
Chill blains	<ul style="list-style-type: none"> -Exposure to cold over long periods -High humidity 	<ul style="list-style-type: none"> -Reschedule work to allow rotation of workers in and out of the cold. -Provide workers adequate warming areas.

Part II - Sample Railhead Operations Training

Railhead Operations Training Program

- Classroom
- Site visit (Railhead-vehicles, Railhead-containers, Staging Area)
- ROC Drill
- Testing

Classroom Training

Utilizing the previous training material, tailor the classroom lesson plan to address your particular needs and unique situations. Ensure each member of your unit is aware of not only their responsibility, but that of other section responsibilities as well. In so doing, mission success is not reliant upon one specific person.

Lesson 1 - Introduction

Lesson 2 - Pre-Operation
Requirements

Lesson 3 - Loading and
Unloading

Lesson 4 - Rail Risk Assessments

Part II - Sample Railhead Operations Training Program

Site visit

(Railhead-vehicles, Railhead-containers, Sta

After completion of the classroom portion of training. The soldier needs to terrain walk the areas discussed in previous sections. In each area, hazard points need to be discussed and dangerous situations explained.

Book solutions need to be “war gamed” on location to assist in developing associated thinking for unplanned occurrences during actual operations.

The ROC Drill

The Rehearsal Of Concept Drill is a key part of “war gaming”. Everything from a toy train set to a parking lot with painted “railcar” outlines can be used.

Using the crawl-walk-run method of training, the unit can experience the big picture as it unfolds. Ensuring that every Key leader, down to the first line leader, understands the mission, is key to a safe and successful rail operation.

Testing

An evaluation should consist of three parts;

- a written exam (Individual)
- a risk assessment of a rail loading situation (small group)
- a sand table ROC Drill. (Entire Class)

Part III - Verification Program

Verification Program

The concept for the Verification Program for Railhead Operations lies with the one of the five basic principals of the Risk Management

The local BSB Commanders are responsible for verifying that safe operations are being conducted on their installations and facilities. Ensuring Units are following local procedures, exercising due care and caution with the movement of equipment, and preventing misuse and abuse of facilities guarantees resources are available for the next unit.



Part III - Verification Program

Verification Program

- ✓ Verification is much more than simply checking the box. Units must include the local BSB safety office in the Planning and Preparing stages of all Unit Movement Plans.
- ✓ The local BSB must have an established SOP for each railhead within their area of responsibility.
- ✓ Once the unit has coordinated with the BSB safety office, they are responsible for complying with all applicable requirements for the facility to be used.
- ✓ The BSB safety office will then verify unit compliance with standards during all operations.



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Part III - Verification Program

Sample Verification Checklist for Rail operations

- | | |
|--|--|
| • Has coordination with the responsible railway official confirmed that electric overhead power lines been shut off and grounded in the railhead work area. Under no circumstances will operations start until confirmation is received. | |
| • Has the unit completed a risk assessment prior to the operation? | |
| • Have the soldiers been briefed and instructed on safety standards and procedures? | |
| • Is the following safety equipment available and in use: | |
| a. Reflective vests or belts. | |
| b. Flashlights or chemical lights for ground guides. | |
| c. Kevlar or OSHA-approved hardhats. | |
| d. Leather or work gloves (<i>not wool inserts</i>). | |
| e. Eye protection. | |
| f. Hearing protection. | |



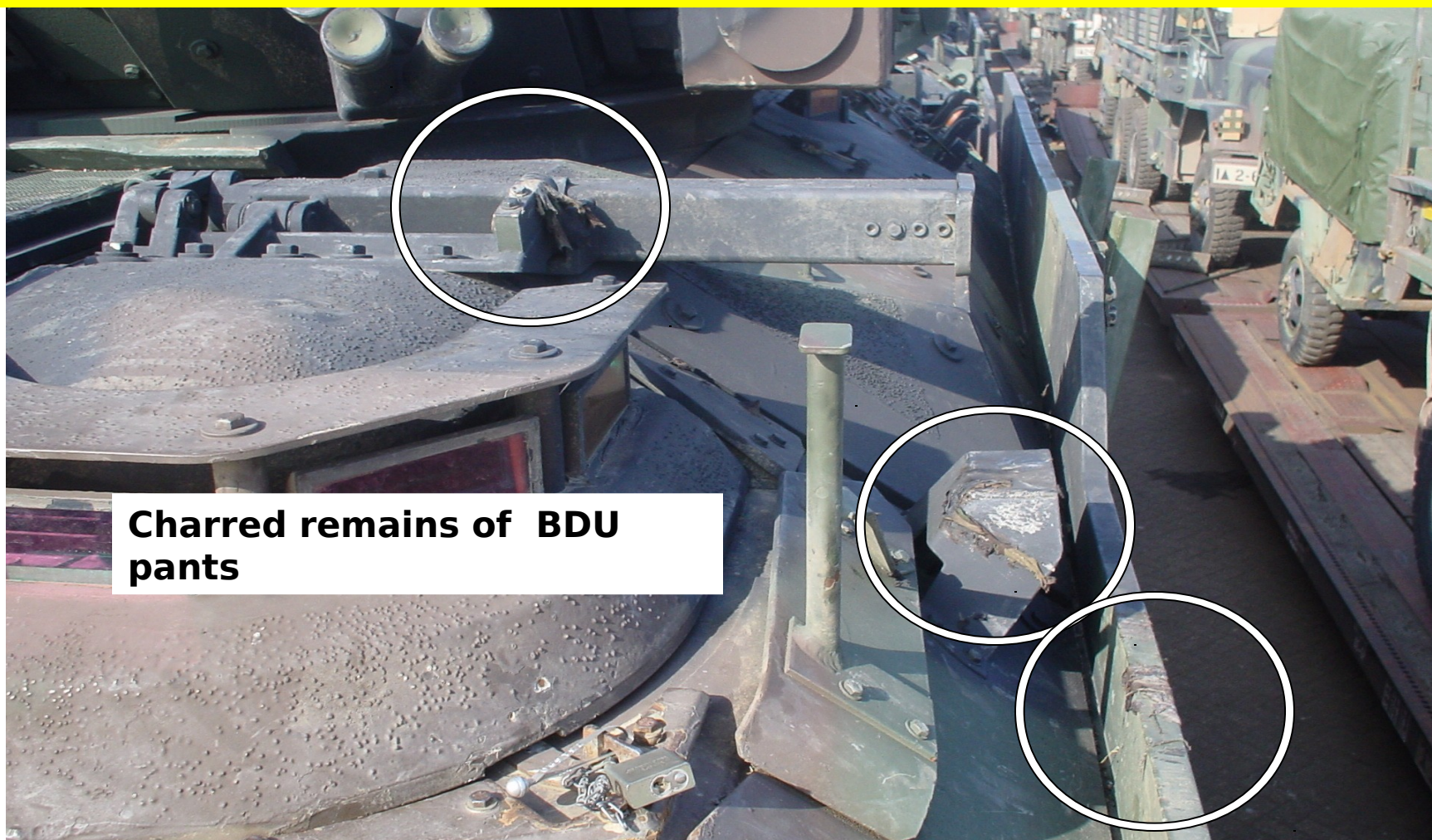
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Part III - Verification Program

• Are the following supervisory personnel on site and qualified:	
a. OIC.	
b. NCOIC.	
c. Safety officer or NCO.	
• Are there trained ground guides and are they being used?.	
• Is there medical support at loading and unloading sites and do the medical support personnel know the most direct route to medical facilities.	
• Is there protection from cold or inclement weather provided? (for example, warming tents)	
• Are the rules of conduct for ensuring safe operations being enforced?	
• Are soldiers working or walking on top of loaded vehicles?	
• Have whip antennas been removed from vehicles before entering a rail-loading site?	
• Have railcars are inspected before loading to ensure ice, snow, and dunnage are removed.	
• Have railcars been returned well swept (after unloading) and nails and wire remnants removed completely.	
• Has trash been cleared from the area before the train leaves.	
• Has a general police call been preformed prior to the departure of railhead support unit?	

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WARNING

"From the time a train is being loaded for departure to the time it is ready to be unloaded, no one will climb on the railcars or on the loaded vehicles for any purpose." GEN Bell, 2005



Charred remains of BDU pants

Being prepared is
the cornerstone to
success in all
things we do.



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For Further Information

**Contact your Local BSB/ASG Safety
Office
Or
Your Divisional Safety Office
Or
The US Army - Europe Safety Office**

Please visit our website at:

<http://www.per.hqusareur.army.mil/services/safetydivision/main.htm>